

**SYSTEMS, METHODS AND COMPUTER PROGRAMS FOR DETERMINING  
DEPENDENCIES BETWEEN LOGICAL COMPONENTS IN A DATA  
PROCESSING SYSTEM OR NETWORK**

**5    ABSTRACT**

Described are methods, apparatus and computer programs for determining run-time dependencies between logical components of a data processing environment.

Components of the data processing environment are monitored by monitoring agents  
10    accessing run-time activity data via APIs of the managed system. A dependency  
generator identifies correlations between the run-time activity of the monitored  
components. For synchronous monitored systems, the dependency generator calculates an  
activity period for monitored components and determines which component's activity  
periods contain the activity periods of other components. Containment is used as an  
15    indicator of a likely dependency relationship, and a weighting is computed for each  
dependnecy relationship based on the consistency of containment.